

**UNITED STATES DEPARTMENT OF COMMERCE****United States Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/087,496

05/29/98

FORSLOW

J

2372-5

EXAMINER

WM02/0606

NIXON AND VANDERHYE
1100 NORTH GLEBE ROAD
8TH FLOOR
ARLINGTON VA 22201-4714

NGUYEN, T

ART UNIT

PAPER NUMBER

2663

DATE MAILED:

06/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/087,496

Applicant(s)

Jan E. FORSLOW

Examiner

Toan Nguyen

Art Unit

2663



— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on May 29, 1998

2a) ☐ This action is FINAL.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-48 is/are pending in the application

4a) Of the above, claim(s) _____ is/are withdrawn from consideration

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-10, 18-27, 29-31, and 33-48 is/are rejected.

7) ☒ Claim(s) 11-17, 28, and 32 is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 and 3

20) ☐ Other: _____

Application/Control Number: 09/087,496

Art Unit: 2663

DETAILED ACTION

1. Claims 2-3, 19, 25, and 35 are objected to under 37 CFR 1.75 because of the following formalities:

In claim 2 line 2, "each application flow" does not have clear antecedent basis because it can not determined which "each application flow" applicant is referring to. It is sugested to change "each application flow" to ---said each application flow---.

In claim 3 line 2, "each application flow" does not have clear antecedent basis because it can not determined which "each application flow" applicant is referring to. It is sugested to change "each application flow" to ---said each application flow---.

In claim 19 line 2, "each application flow" does not have clear antecedent basis because it can not determined which "each application flow" applicant is referring to. It is sugested to change "each application flow" to ---said each application flow---.

In claim 25 line 2, "each application flow" does not have clear antecedent basis because it can not determined which "each application flow" applicant is referring to. It is sugested to change "each application flow" to ---said each application flow---.

In claim 35 line 2, "each of the two data packet streams" does not have clear antecedent basis because it can not determined which "each of the two data packet streams" applicant is referring to. It is sugested to change "each of the two data packet streams" to ---said each of the two data packet streams---.

In claim 11 line 1, "clam" should be changed to ---claim---.

Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 102

2. The following is a quotation of the appropriate paragraphs of U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless--

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country more than one year prior to the date of the application for patent in the United States.

Claims 1-10, 18-27, 29-31, and 33-48 are rejected under U.S.C. 102(b) as being anticipated by Baugher et al (EP 0632672 A2).

For claims 1 and 18, Baugher et al disclose system and method for bandwidth reservation for different traffic classes comprising:

the mobile host establishing a packet session during which plural application flows are communicated with an external network entity, each application flow having a corresponding stream of packets (see figure 5, col. 12 lines 37-41), and

defining a corresponding quality of service parameter for each of the plural application flows such that different quality of service parameters may be defined for different ones of the application flows (see figure 5, col. 12 lines 41-54). In claim 18, Baugher et al disclose further:

making a reservation request from the mobile host to the gateway node for a particular quality of service for an individual application flow (col. 3 lines 43-47);

determining whether the reservation request can be met (col. 4 lines 32-34); and
if so, establishing a logic bear between the mobile host and the gateway node that includes the serving node to bear plural ones of the individual application flows having different corresponding quality of service classes (col. 12 lines 37-54).

For claim 2, Baugher et al disclose delivering packets corresponding to each application flow from the external network entity to the mobile host in accordane with the defined corresponding quality of service (see figure 2, col. 6 lines 45-49, and col. 12 lines 41-54).

For claim 3, Baugher et al disclose wherein the quality of service is defined for each application flow at a network packet layer for an end to end communication from the mobile host and the external network entity (col. 3 lines 49-56).

For claim 4, Baugher et al disclose wherein different qualities of service have different allocated bandwidths, delays, or reliability (col. 3 line 10, col. 8 line 23, and col. 12 line 37-41).

For claim 5, Baugher et al disclose wherein the different quality of services include one class of service that is best effort where packets in an application flow may be dropped and another class of service that is predective where packets in an application flow are not dropped (col. 9 lines 9-21).

For claim 6, Baugher et al disclose wherein a quality of service includes a delay class that specifies one or more of the following: a maximum packet transfer rate, a mean packet transfer rate, and a packet burst size of an application flow (col. 4 lines 48-50, and col. 8 lines 30-32).

For claim 7, Baugher et al disclose storing subscription information for the mobile host sepcifying whether the mobile host may request a quality of service for sepcific application flows, and checking the subscription information before defining quality of service parameters (col. 16

lines 13-19).

For claim 8, Baugher et al disclose making available for the session each quality of service class to which a user of the mobile host subscribes (col. 3 lines 25-30).

For claim 9, Baugher et al disclose wherein session control messages are communicated between the mobile host and the gateway node using a best efforts quality of service delay class (col. 8 lines 20-24).

For claim 10, Baugher et al disclose activating a packet session for the mobile host so that the mobile host is in communication with the gateway node (see figure 2, col. 6 lines 45-49);

the mobile terminal requesting an end-to-end configuration between the mobile terminal and the external network entity (col. 6 lines 45-49).

For claim 19, Baugher et al disclose classifying and scheduling packets corresponding to each application flow from the external network to the mobile host over the bearer in accordance with the defined quality of service class corresponding to the application packet stream (see figure 9B, col. 14 lines 8-27).

For claim 20, Baugher et al disclose the serving node determining if the reservation request for the particular quality of service is permitted by a subscription corresponding to the mobile host (see figure 9A, col. 14 lines 8-9).

For claim 21, Baugher et al disclose the serving node evaluating if the reservation request for the particular quality of service can be supported from the serving node to the mobile host based on a current traffic load of existing radio communications in the area where the mobile host is being served (col. 14 lines 9-10).

For claims 22, Baugher et al disclose wherein the evaluating step includes the serving node

estimating a delay and a bandwidth requirement corresponding to the request quality of service (col. 8 lines 20-24, and col. 9 lines 11-21).

For claims 23, Baugher et al disclose the serving node providing the gateway node the estimated delay and an estimated of a bandwidth requirement corresponding to the reservation request (col. 13 lines 19-26), and

the gateway node providing the delay and bandwidth estimates to a network layer protocol (see figures 9A and 9B, col. 13 lines 4-9).

For claim 24, Baugher et al disclose the gateway node renewing the quality of service reservation (col. 13 line 58 to col. 14 line 4).

For claim 25, Baugher et al disclose the gateway node monitoring each application flow to ensure that the reserved quality of service for that application flow is met (col. 13 lines 23-26).

For claim 26, Baugher et al disclose the gateway node scheduling transfer of packets corresponding to one of the application flows to ensure that the reserved quality of service for that application flow is met (col. 14 lines 9-21).

For claim 27, Baugher et al disclose further comprising:

the gateway node classifying packets using the reserved quality of service for the application flow to which each packet belongs (col. 14 lines 4-9).

For claim 29, Baugher et al disclose system and method for bandwidth reservation for different traffic classes comprising:

each mobile host establishing a packet session during which plural application flows are communicated with an external network entity, each application flow having a corresponding stream of packets (see figure 5, col. 12 lines 37-41);

defining a corresponding quality of service parameter for each of the plural application flows such that different quality of service parameters may be defined for different ones of the application flows (see figure 5, col. 12 lines 41-54); and

the serving node merging packets from different sessions with the same quality of service (see figure 5, col. 12 lines 37-39).

For claim 30, Baugher et al disclose the serving node merging packets destined for different mobile hosts within a same geographical service area and with the same quality of service (see figure 5, col. 12 lines 37-54).

For claim 31, Baugher et al disclose wherein the merging is performed using first in first out scheduling except when packets cannot be delivered within a specified time (col. 13 lines 36-41).

For claim 33, Baugher et al disclose system and method for bandwidth reservation for different traffic classes comprising:

a mobile terminal establishing a data packet communications session, running two data packet applications during the session (col. 7 lines 14-25), and

communicating two data packet streams corresponding to the two data packet applications with another entity in an external network (see figure 5, col. 12 lines 37-41), and

a packet network connected between the mobile terminal and the external network entity reserving a different quality of service class for each of the two data packet streams associated with the mobile terminal during the session (see figure 5, col. 12 lines 41-54).

For claim 34, Baugher et al disclose wherein

packets corresponding to the two data packet streams having different quality of service

classes are transferred to and from the mobile terminal using a data packet network bearer established for the session (col. 12 lines 37-54).

For claim 35, Baugher et al disclose wherein the quality of service class is reserved for each of the two data packet streams at a network packet layer for an end to end communication from the mobile terminal and the external network entity (col. 3 lines 49-56).

For claim 36, Baugher et al disclose wherein different qualities of service classes have different allocated bandwidths, delays, or reliability (col. 3 line 10, col. 8 line 23, and col. 12 line 37-41).

For claim 37, Baugher et al disclose wherein one of the different quality of service classes is a best effort delivery class where packets in an application flow may be dropped and another class of service is a predictive delivery service where packets in an application flow are not dropped (col. 9 lines 9-21).

For claim 38, Baugher et al disclose wherein each quality of service class includes a delay class that specifies one or more of the following: a maximum packet transfer rate, a mean packet transfer rate, and a packet burst size of an application flow (col. 4 lines 48-50, and col. 8 lines 30-32).

For claim 39, Baugher et al disclose a database node that stores subscription information for the mobile terminal specifying whether the mobile terminal may request a quality of service for specific application data packet streams, and wherein the packet node checks the subscription information before a quality of service class is reserved (col. 16 lines 13-19).

For claim 40, Baugher et al disclose wherein the packet network includes:

a serving node connected between the gateway node and the mobile terminal (see figure 2,

col. 6 line 48);

a gateway node connected between the serving node and the external network entity (col. 13 line 23).

For claim 41, Baugher et al disclose wherein the gateway node relays packets between the mobile terminal and the external network entity (col. 13 lines 19-26).

For claim 42, Baugher et al disclose wherein the serving node evaluates if a quality of service class reservation request can be supported from the serving node to the mobile terminal based on a current traffic load of existing radio communications in an area where the mobile terminal is being served (col. 14 lines 9-10).

For claim 43, Baugher et al disclose wherein the serving node estimates a delay and a bandwidth requirement corresponding to the requested quality of service (col. 8 lines 20-24, and col. 9 lines 11-21).

For claim 44, Baugher et al disclose wherein the gateway node periodically renews the quality of service reservation (col. 13 line 58 to col. 14 line 4).

For claim 45, Baugher et al disclose wherein the gateway node schedules transfer of packets corresponding to one of the two data packet streams to ensure that the reserved quality of service for that is met (col. 14 lines 9-21).

For claim 46, Baugher et al disclose wherein the gateway node classifies packets using the reserved quality of service for the application flow to which each packet belongs (col. 14 lines 4-9).

For claim 47, Baugher et al disclose wherein the serving node includes:

a first set of queues storing packets having the same quality of service class and data

packet communications session (see figures 6 and 7, col. 12 line 55 to col. 13 line3);

a second set of queues storing packet having the same quality of service class and the same mobile terminal (col. 7 lines 14-22); and

a third set of queues storing packets being served in the same geographic area and having the same quality of service class (col. 9 lines 51-57).

For claim 48, Baugher et al disclose system and method for bandwidth reservation for different traffic classes comprising:

a reservation controller reserving a different quality of service for different ones of plural data packet streams associated with corresponding applications operating at the mobile terminal and established during a data session when the mobile terminal is attached to the packet network, where s packets in the plural application flows are originated from the external network and are directed to the mobile terminal (see figure 2, col. 6 line 56 to col. 7 line 34).

Objection To Claims, Allowable Subject Matter

3. Claims 11-17, 28, 32 are objected to as dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the information of the base claims and any intervening claims.

Contact Information

4. Any response to this action should be mailed to:
Assistant Commissioner for Patents

Washington, D.C. 20231

or faxed to:

(703) 308-9051 or (703) 308-9052 (for formal communications intended for entry)
(703) 306-5406 (for informal or draft communications, please label "PROPOSED" or
"DRAFT")

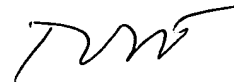
5. Hand-delivered responses should be brought to Crystal Park II,
2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).
6. Any inquiry concerning this communication or early communications should be directed to
Toan Nguyen whose telephone number is (703) 305-0140. He can be reached Monday through
Friday from 7:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Mr. Chau Nguyen, can be reached at (703) 308-5340. The fax phone number for this
Group is (703)-872-9314.

Any inquiry of a general nature or relating to the status of this application should be direct
to the Group receptionist whose telephone number is (703) 305-9600.

TN

T.N.



DANG TON
PRIMARY EXAMINER